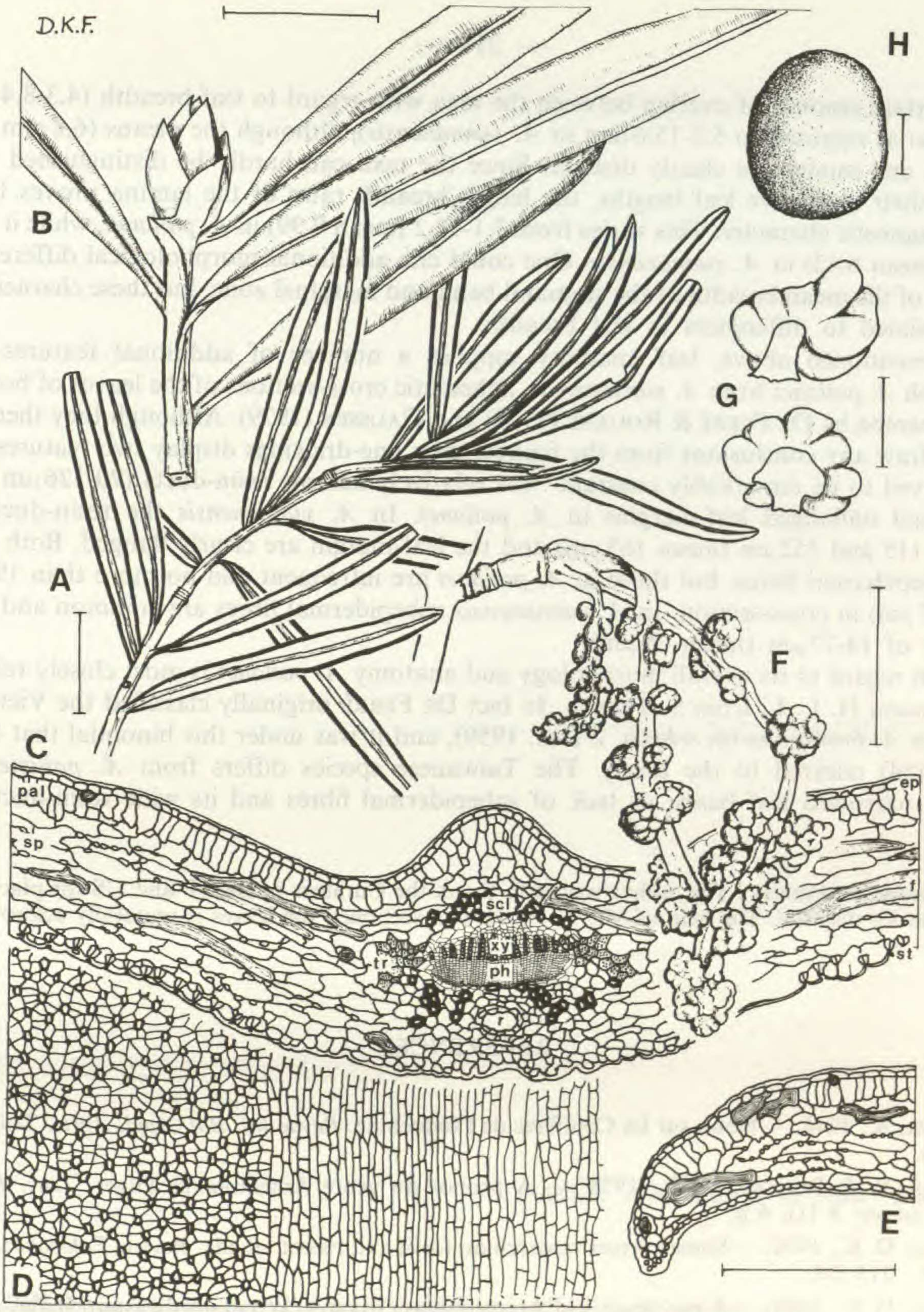

Fig. 1. — **Amentotaxus poilanei** (De Ferré & Rouane) D. Ferg., based on *Poilane 32686* (P). **A**, three-year old branchlet displaying broad stomatal bands on the abaxial leaf surface (bar = 2 cm). **B**, shoot apex illustrating the extremely cuneate leaf bases and the ovoid buds with decussate bud-scales (bar = 1 cm). **C**, cross-section of leaf displaying cell-detail in costal region (ep = epidermis, f = fibre, pal = palisade, ph = phloem, r = resin duct, scl = sclerenchyma, sp = spongy mesophyll, st = stoma, tr = transfusion tissue, xy = xylem). **D**, epidermal cells of the abaxial leaf surface drawn to the same scale as C; elongate cells of the costal zone on the right, polygonal accessory cells surrounding the stomatal orifices on the left. **E**, cross-section of leaf margin drawn to the same scale as C and D (bar = 500 μm). **F**, staminate racemes bearing fascicles of stamens (bar = 1 cm). **G**, individual stamens with pollen sacs, some of which are aborted (bar = 1 mm). **H**, scabrate pollen grain (bar = 10 μm).

even a certain amount of overlap between the taxa with regard to leaf breadth (4.3-8.4 mm in *A. poilanei* as opposed to 5.5-15.6 mm in *A. yunnanensis*), although the means (6.8 mm versus 10.3 mm) and modes are clearly distinct. Since the taxa can hardly be distinguished on the basis of their respective leaf lengths, the length/breadth ratio of the lamina proves to be a useful diagnostic character. This varies from 7.1-12.2 (mean 9.99) in *A. poilanei*, while it is only 3.0-9.3 (mean 6.42) in *A. yunnanensis*. One could cite additional morphological differences in the form of the mean breadth of the stomatal band and marginal zone, but these characters are clearly related to differences in leaf breadth.

As mentioned above, leaf anatomy supplies a number of additional features which distinguish *A. poilanei* from *A. yunnanensis*. Schematic cross-sections of the leaves of both taxa were presented by DE FERRÉ & ROUANE (1978) and GAUSSEN (1979). Although they themselves did not draw any conclusions from the figures, their line-drawings display two features which have proved to be remarkably constant : the relatively narrow resin-ducts (70-126 μm ; mean 96 μm) and unflanged leaf-margins in *A. poilanei*. In *A. yunnanensis* the resin-ducts vary between 115 and 252 μm (mean 165 μm) and the leaf-margin are clearly flanged. Both species have subepidermal fibres, but those in *A. poilanei* are infrequent and no more than 19-42 μm (mean 27 μm) in cross-section. In *A. yunnanensis* subepidermal fibres are common and have a diameter of 14-77 μm (mean 39 μm).

With regard to its overall morphology and anatomy *A. poilanei* is most closely related to *A. formosana* H. L. Li from S. Taiwan. In fact DE FERRÉ originally classified the Vietnamese species as *A. formosana* (*in scheda*, 2 Dec. 1959), and it was under this binomial that SCHMID (1974 : 134) referred to the taxon. The Taiwanese species differs from *A. poilanei* in its abruptly narrowed leaf bases, its lack of subepidermal fibres and its wide resin-ducts (105-196 μm).

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